Convention on the Conservation of Migratory Species of Wild Animals

1st African Wild Ass Range State Meeting (AWA)

Bonn, Germany, 6 - 7 March 2017

UNEP/CMS/AWA/Report

REPORT OF THE MEETING

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Bundesministerium für Umwelt, Naturschutz, Bau und Reaktorsicherheit

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March 6

Opening and Welcoming Remarks

1. Bert Lenten (Deputy Executive Secretary, CMS) opened the meeting by welcoming the delegates to Bonn and to Langer Eugen building, as well as the Convention on the Conservation of Migratory Species of Wild Animals (CMS). Christiane Paulus (German Ministry of Environment, BMUB) explained the history of the venue "Langer Eugen", and of CMS, while highlighting the contribution and interest of the German Government in supporting vulnerable African and Asian species. Furthermore, she recognized the support of the Range States and IUCN in conserving the African Wild Ass (AWA). She wished for successful discussions towards conservation of the AWA.

2. Speaking after Ms Paulus, Gertrud Denzau (Researcher) called for cooperation between all stakeholders to secure the Wild Asses' future before it was too late. She also provided the plenary with important information, such as the friendly approach of the Afar nomadic herding tribe to the AWA and the relevant expert book which she had written with her husband, Helmut Denzau.

3. Next, Patricia Moehlman introduced the IUCN/SSC Equid Specialist Group and thanked the workshop facilitators saying that the workshop was an opportunity for people to come together and cooperate over issues of mutual concern for conservation of the AWA.

4. Mr Lenten explained that the German Ministry had approached CMS to highlight the plight of the AWA. As the AWA was not listed on the Convention's Appendices, CMS would not normally have the mandate to act, but considering the species' conservation status, there was a need to intervene. There were several actions to be considered, including maintenance of a captive breeding population as a back-up. The region was full of political challenges, and he hoped tha they could be overcome allowing focus to be placed on the conservation of the AWA, by concentrating on what countries had in common. In conclusion, he thanked the Government of Germany for its support and making the meeting possible. He handed over to the facilitator, David Mallon.

Introduction to the Meeting Agenda and Purpose of the Meeting

5. Mr Mallon stated that there were two objectives to be achieved. The first was to develop a draft "Conservation Roadmap' for the AWA, and the second was a proposal to list the AWA on CMS Appendix 1. All relevant documents should be prepared by 25 May 2017, to be adopted at the 12th Conference of the Parties in October 2017. Once the 124 CMS Parties had ratified the "Roadmap" and the proposal for listing, the Range States could proceed with the implementation of the Action Plan.

6. The "Conservation Roadmap" provided the basis for the global strategic planning processes. The structure would follow the IUCN Conservation Strategy Process with standard principles: goal-target project planning with sound science and a simple structure, agreed upon by the government agencies, the NGOs, local communities and research/conservation scientists. The Conservation Roadmap was necessary because it would bring together all stakeholders to achieve more than if they worked alone. Secondly, the "Conservation Roadmap" could provide a global framework for all partners to restore the AWA to its former range, which would be much wider than at present. A framework in the form of a Conservation Roadmap allows for coordination of action and objectives and helps avoid duplication. The stakeholders present at the meeting would have the chance to address the highest global threats and work towards them. Furthermore, the Action Plan would assist fundraising efforts.

Presentations: Status of the African Ass in current and former Range States

7. Fanuel Kebede Gorfu (Ethiopia) gave an overview of the current status of the AWA in Ethiopia. Tekleab Mesghena asked him why the Spotted Hyena was not considered as a threat. The answer was that hyenas tended to hunt herds and the AWA groups were very small at the time. Also, not many hyenas were present in the areas where the AWA reside in Ethiopia.

8. Futsum Hagos Gebremariam (Eritrea) presented the current AWA status in Eritrea, and Redae Teclai continued through a second presentation. Ludwig Siege (GIZ) asked about the possibility of it being Striped Hyenas that predated, rather than Spotted Hyenas, as the latter would not usually hunt large animals. Futsum Hagos replied that he was confident about the predators being Spotted Hyenas, as he had had the chance to monitor them himself.

9. Helmut Denzau gave a presentation regarding the conservation status of AWA in Egypt, on behalf of Egyptian expert Moss'ad Sultan, who could not attend. David Mallon and Patricia Moehlman expressed the opinion that the pictures included in the presentation could not be used effectively to distinguish between pure AWA and domestic/AWA hybrids. Genetic samples needed to be taken to separate between the hybrids, feral donkeys and pure AWA. The samples could generally be imported and exported, although it was important to check with CITES authorities. David Mallon invited further discussion to determine the genetics and subspecies details.

10. He proceeded by introducing Paul Evangelista (University of Colorado), who described the status of the AWA in northern sub-regions of Somalia. Three objectives were formed from that area: to train wildlife authorities, to conduct a broad assessment of the status of more than 40 wildlife species, and to develop methods for species distribution modelling. Starting July 2016, the wildlife department had conducted surveys throughout the countryside, and completed 200 interviews targeting sheep herders and local communities. A wildlife album had been put together and shown to people with who were asked whether these animals were present in the respective area. The album included wildlife that had gone extinct in the area, in order to estimate the error. With a 3 per cent error, most interviewees considered the AWA extinct, with the extinction being a result of a 3-year drought during the past five years, as well as increased poaching activity. A few reported AWA presence, but it was not confirmed due to the possibility that it might have been domestic donkeys mistaken for AWA.

11. Mr Kebede asked what the timeframe for that information was, and Paul Evangelista replied that the data had been collected in July and August 2016, explaining the methodology behind his analysis. Ms Moehlman inquired which areas of the country's northern region could not be tested, where AWA may reside. The reply was that most of south-east area of the sub-region was an off-limits conflict zone. There was also a vast area in the south that was un-sampled. Mr Evangelista proceeded by mentioning that guns were relatively strictly controlled and that poaching was not a large part of the local culture apart from the AWA. People openly talked about poaching the AWA for food and medicine. The regional Government had enacted its first wildlife laws recently, and declared killing wildlife illegal. The next step would be to organize enforcement elements.

12. Ms Moehlman finished the presentations with a general overview of the AWA and its history.

13. This section finished with a discussion of how the AWA could be bred in captivity, presented by Beatrice Steck and Tim Thier. Replying to Lakew Berhanu's (GIZ) question about the requirements to establish new zoo populations in South America, Ms Steck replied that zoos should provide suitable exhibits that fulfil the size and quality criteria, with indoor and outdoor communication and sufficient funds for transportation costs. Ms Denzau asked what happened to animals transported to Djibouti and the reply was that five out of the seven castrated males had died. Ms Steck mentioned that introducing diseases with the reintroduction of species was a big challenge. Ms Moehlman added that until diseases were completely under control, it could affect the natural populations if some were reintroduced and that was not a risk worth taking given the situation at the time. Mr Mallon asked if there were AWA in private holdings that wouldn't be in breeding programs and Mr Thier replied that there were a few, but not as many as in their breeding programs.

14. Ms Moehlman stated that rather than diverting for establishing captive breeding populations in Africa, it would be better to focus on enhancing the situation for existing wild populations. Mr Mallon mentioned that only small populations in Eritrea and Ethiopia existed, and maybe some in Egypt. Captive populations were crucially important in the case of emergencies. Mr Thier agreed to get in touch with his contacts to estimate the number of AWA in private holdings.

15. Ms Moehlman suggested the method of introduction into semi-reserves introduction by European and American zoos. Ms Steck was open to the idea, though the financial means for such a project would be difficult to acquire. Futsum Hagos wanted to clarify which types of diseases are of the primary concerns for captive populations. Ms Moehlman listed an example of diseases, like equine herpes virus type 1 and type 9, pneumonia, tuberculosis and anthrax. There was a list of about 20 problematic diseases that affected all equids. If AWA were to be reintroduced, these diseases could be spread to other animals and livestock. Ms Moehlman went on to explain that diseases are a real threat as they would be difficult to manage, as well as asymptomatic in some animals; she elaborated that in some EU zoos the equine herpes virus is jumping from equines to other animals such as polar bears and killing them. Therefore, introducing a captive and potentially diseased population of AWA into the wild population could have disastrous effects, and current conservation efforts should be focused on enhancing naturally occurring populations rather than engineering more captive populations.

16. Sarah King asked whether captive populations could be introduced far away from existing populations to prevent the spread of diseases, to which Ms Moehlman replied in the negative. She explained that AWA can move thousands of kilometers and gave an example of reintroduced gazelles surround by fences that escaped and spread out. Furthermore, she worried that captive AWA populations would struggle to adapt to being released in the wild. She explained that when castrated male AWA were moved to a zoo in Djibouti, where they were well cared for, but 90 per cent still died due to their inability to adapt to the new environment.

17. She expressed enthusiasm for a semi-reserve in the south-west of the USA, which could make AWA populations better suited to adapting to reintroduction, and highlighted that semi-reserves had worked well for horses in the past. She concluded by stating her belief that AWA populations in Ethiopia and Eritrea could come back with positive management, and that the reintroduction of captive populations could have many problems. Ending the discussion, Mr Mallon gave a brief recap and invited the plenary to move onto discussing a range-wide status review.

Finalizing the Range-wide Status Review

18. Mr Mallon explained that Ms Moehlman had made the status review. He explained that the review was on its second draft thus far, and that draft three would be the second draft with all the notes from the meeting added in. He made clear that the first stage was to identify existing threats to the naturally occurring AWA populations.

Problem Analysis: Working Groups and Discussions, Identifying Threats

19. During the plenary, a table of threats was displayed on the main projector. Mr Evangelista opened discussion by enquiring whether the threat of climate change was included in the table. Mr Mallon confirmed that it was, but invited the plenary to submit any threats that may have been omitted. He conveyed that the working group would need to agree on the range covered by the threat (0-100 per cent of the migratory range) and the impact of the threat (from low to very high).

20. He instructed the group to base their assessments on the current range of the AWA and the current impact of each threat, as opposed to hypothetical assessments of the potential future range/impact. At the suggestion of Mr Evangelista, Mr Mallon decided to include caveats in these assessments: Mr Evangelista provided an example of poaching, as it was once a large threat to the AWA, and an assessment based on its contemporary impact would underestimate its previous and potential future impact.

21. Mr Mallon asked the group to firstly consider poaching of the AWA. On behalf of Eritrea, Mr Hagos said that they did not have this problem. On behalf of Ethiopia, Mr Kebede said poaching occurred in less than 25 per cent of the AWA range. Mr Mesghena asked whether Mr Kebede could provide any numbers regarding poaching for meat. Mr Kebede answered that no numbers could be provided, but that poaching had been minimized over the previous ten years. He went on to explain that as medical facilities were being built in Ethiopia, poaching of the AWA for medicine had been significantly reduced. Additionally, due to his engagement with community elders and religious leaders, poaching of the AWA had been declared “haram,” or forbidden, by the Afar tribe.

22. Ms Denzau emphasised that there was still some poaching by a different tribe. There was a consensus by the plenary that although the impact of poaching was currently low, there should be a note that it was a significant reason for previous declines in AWA populations.

23. Mr Mallon moved onto discussing the threat of resource competition, in other words, competition of AWA populations for grazing and water, usually with other livestock such as sheep and cattle. Mr Hagos said that resource competition covers around 75 per cent of range in Eritrea. Mr Kebede said resource competition covered 100 per cent of the range in Ethiopia. A consensus emerged that resource competition had a very high impact on AWA populations. Mr Teclai contributed that many AWA stopped giving birth at the age of 4-5 years, because of resource competition. Mr Kebede noted that people often bring livestock to graze at oases during the day, which meant that AWA had to come to drink during the night.

24. Mr Mallon directed the discussion to potash mining. The group came to a consensus that potash mining could be a potential threat in the future, but currently presented no threat. Mr Mallon argued it was currently impossible to assess the future impact of potash mining on the AWA populations; he stated that future impact depended on compliance with the EIA and the enforcement of measures to mitigate the environmental impact of the mining. This was followed by a similar consensus that the group lacked the knowledge to accurately assess the impact of gold mining.

25. Mr Mallon moved onto the issue of hyena predation. Mr Kebede said hunting affected 25 per cent of the Ethiopian range whereas Mr Hagos assured the group that it affected 100 per cent of the range in Eritrea. There was disagreement regarding the impact of hyena predation, and it was agreed that further research was needed to determine the threat that it presented. There was further agreement hyena predation is no issue in Somalia. For the time being, the severity of the threat was estimated as between low and high.

26. Mr Mallon advised the group to move onto overgrazing and habitat degradation. Ms Moehlman contributed that lactating female AWA need water daily and must often travel from water to get forage; she therefore argued it was essential that water and forage were sufficiently close together to sustain AWA births. The group agreed that stronger regulations and enforcement measures were needed to prevent overgrazing and habitat degradation. There was further agreement that habitat degradation was linked to climate change but that the phenomena should be kept separate.

27. The plenary moved onto climate change and agreed it affected 100 per cent of the AWA range across all Range States. Mr Evangelista explained that although the frequency of rainfall was increasing, the volume was not. He believed the new rainfall could affect AWA migration patterns, and be potentially harmful. There was a consensus that there was no way to effectively estimate the impact of climate change on AWA populations.

28. Mr Mallon invited the group to discuss invasive species. Mr Kebede contributed that AWA graze on grass and this grass was being replaced by the invasive species *prosopis juriflora*. The group agreed that there was disagreement over whether Prosopis juriflora should be planted in Djibouti and Eritrea; Mr Evangelista concluded the discussion by saying that the plant had benefits for local people but not the AWA.

29. The plenary went on to discuss demographics and the threat of hybridization with domestic donkeys. Ms Moehlman contributed that female AWA had no interest in male domestic donkeys, but male AWA had some interest in female domestic donkeys. It was concluded hybridization was a low threat. Ms Moehlman further contributed that genetic diversity of the AWA populations was low, but was not a present concern as it could just reflect the low population size of the AWA. The present experts agreed that only fecal sample analysis and morphology were accurate in determining genetic issues. It was postulated that low genetic diversity might present a threat in the future.

30. The group quickly agreed that foal mortality presented a low threat, as Ms Moehlman explained the foal survival rate is reasonably strong at around 70 per cent.

31. Finally, the plenary moved onto discuss the issue of technical and institutional capacity within AWA Range States. Mr Teclai said that many people had no knowledge of the AWA, and that awareness raising programs at all levels were important to implement. Ms Moehlman added it was especially important to raise awareness of AWA conservation within the military and government authorities.

32. Mr Kebede said that the AWA populations were no longer inside the large protected area network within Ethiopia. There was agreement that there was a lack of infrastructure within the Range States.

33. Mr Mallon contributed that both soft and hard measures were needed; soft measures, such as raising awareness and engaging communities, and hard measures, such as imprisoning poachers. He went on to emphasize that protected areas are important for sustaining biodiversity, and that they require legislation to implement. Mr Kebede and Mr Kahsay Gebretensae (Ethiopia) agreed that protected areas were difficult to establish for AWA populations as the species could roam away from the protected areas. Ms Moehlman countered that there was nevertheless a critical area for AWA reproduction in Eritrea, and that the area could make a significant difference in population viability of the AWA if the species could receive increased protection there, with agreement from the local people and demarcation of the livestock there. She concluded that an adequate protected network was a pragmatic possibility and could have a huge positive difference. Mr Kebede added that for this strategy to work, decision-makers would need to know where the AWA populations are, and where they are away from protected areas.

34. Mr Mallon concluded the discussion and the group agreed to reconvene the next day to begin the process of developing an action plan for the AWA and inclusion of the AWA in CMS Appendix II through a resolution submitted to the 12th Conference of Parties.

March 7

Introduction to the day's agenda

35. Mr Mallon opened the second day by welcoming participants to the plenary. He went on to highlight the previous day's progress and introduce the agenda of the day.

Vision

36. The members of the working group discussed what they would like to see in the future to conserve the AWA. They began by examining the development of a "Conservation Roadmap" to outline a long-term vision for conservation of the AWA. The working group decided to develop the Conservation Roadmap for the next 5-10 years. They went on to discuss where known populations of the AWA were located, and concluded that the main Range States were in Ethiopia and Eritrea.

37. It was considered that extant populations could reside in Djibouti, Egypt, Somalia and Sudan. It was further considered that there could be more ex situ or unidentified semi-captive populations. Mr Mallon contributed the cautionary tale of a population of Swayne Hartebeest, which died out in 1910 due to rinderpest, and disappeared from cultural memory. When conservationists attempted to reintroduce the species into the wild, the local people objected, because they had forgotten the species. Mr Mallon concluded by emphasizing the importance of keeping populations aware of the AWA so that it would stay alive in cultural memory.

38. Mr Mallon then asked the plenary to think about how many populations of the AWA they wanted to include in the "Conservation Roadmap", and the geographic migratory range that should be considered. He asked them to further consider who should be included in the process of developing future conservation projects for the AWA, with some of the possibilities being experts, Governments, the public, other stakeholders (including communities), scientists and NGOs, or all of them by consensus. Mr Mallon went on to emphasize the difference between vision and goals, which were to be discussed later in the meeting. Whilst vision was described as aspirational, goals were described as more practical and substantial.

Working Groups based on Themes

39. There were four Working Groups based on the themes: Eritrea, Ethiopia, All other Range States and Captive Population. Each Working Group came up with actions to conserve AWA in their respective area. They had some time to write their thoughts and actions, and then present them to the plenary.

40. Mr Thier (St Louis Zoo) reported on the actions proposed by Captive Populations Working Group. He spoke about veterinarian issues such as sarcoids (skin cancers) mainly present in Europe but also found in the USA, research into fatalities and health problems and the uncertainty over carrying rate. He then explained the opportunities for expanding populations in zoos, as well as the possibility of establishing semi-reserves. In genetic research, lack of funding was the prevailing factor to tackle. He also mentioned the creation of a link between in and ex situ conservation for awareness raising and communication. Barbara Maas (NABU) inquired why expanding the number of zoos was necessary, and Mr Thier replied that if the limited current space were to expand, healthier and more numerous population would be possible. It would also help maintain the stock and would stop the drift of genetics.

41. Mr Mallon mentioned that the Arabian Association of Zoos and Aquaria was newly set up and Ms Steck highlighted the need to create a connection with Arabian countries. Ms Moehlman pointed out that zoos had a major role, especially on awareness-raising and a mutually supportive relationship with IUCN. The question from Eritrea was whether it made sense to take the specimens to Europe and America and not restore them to their old range. Mr Thier was open to the possibility, but the first step before reintroducing stock to the wild, would be to build up AWA capacity to survive in a less zoo-like environment. Mr Mallon reminded everyone of the veterinary risks with disease, if they were reintroduced in the wild.

42. Second to report was Mr Evangelista on behalf of all other Range States Working Group. He sorted the actions according to priority, starting with Somalia and Puntland and mentioning surveys for occurrence, anti-poaching laws and enforcement, education, awareness and capacity building in the wildlife department. Continuing with Sudan, Djibouti and then Egypt, he highlighted the need for surveys and networking.

43. Mr Hagos presented for the Eritrean Working Group. The presentation was structured with threats and actions in order to solve them. Among others, the main actions concerning Eritrea were research and capacity building, prevention of disease and effects of drought, socio-economic community development and appropriate management for land and soil degradation. Ms King asked what about the goal of alternative incomes. The alternative incomes would be provided to reduce pastoralism and minimize resource competition for wildlife. Mr Kebede pointed out the need to address community needs in the action plan of Eritrea. Mr Hagos agreed and indicated where in the action plan this topic was covered.

44. The last Working Group Action Plan was presented by Lakew Berhanu on Ethiopia. The objectives were formed to respond to different threats, and included the protection of AWA from hunting, engaging local communities in the conservation efforts, raising awareness, reducing competition with livestock, reducing the negative impacts to AWA from climate change, infrastructures, settlements and roads, improving Protected Area coverage and capacity building.

45. Paul Evangelista requested elaborating on the objective of capacity building in regards to who would be receiving the capacity-building. Mr Berhanu explained that it would be applied on the management of the prospective protected areas. Mr Kahsay Gebretensae mentioned the practice of engaging religious leaders in conservation, which gave a broad solution for dealing with poaching. Resource competition was the worst threat, in his opinion. Also, predation by large carnivores led to retaliatory killing. Ms Maas noticed that community reward schemes to protect wildlife started in Sweden (Reindeer) and applied to a densely

populated area of the United Republic of Tanzania where lions were being forced out by herders. While hunters used to take lions for prowess and protection, then they became lion guardians wanting to protect the animals, which slowly led to a change of attitude.

Side Event

46. During the lunch break, the Denzaus hosted the side event titled: “African Wild Asses - Rare insights from old documents”, for comparison with the present status and distribution.

Afternoon discussions

47. After thanking the Denzaus for their presentation, Mr Mallon reminded everyone that the documents of this meeting were available on the CMS website. He pointed out that the meeting files were too large to be e-mailed, but they could be zipped. After the four presentations on captive populations, former Range States, Eritrea, and Ethiopia it was time for general discussion and additional points on the actions to be taken for the conservation of AWA.

48. Ms King asked if aerial surveys were a possibility, for monitoring the AWA. Ms Moehlman replied that they had seen seven African Wild Asses in the Nugal Valley by ground surveys. By contrast, when they did an aerial one with low altitude, they saw none. Through ground surveys, they could also heard oral reports, which would not be possible by aerial ones. Also the possibilities of infrared cameras, planes and drones were discussed. It was uncertain whether drones or planes would be allowed close to the border. Mr. Mallon added that Mike Naughton Griffiths had counted individuals using aerial surveys with high definition photos. It had been costly but with spectacular results. He proposed using this method to find AWA in other sites unknown to the scientists at the time. Mr Denzau gave an example from China, and mentioned the need to take photos in different times for identifying errors in the calculations. Ms Moehlman proposed counting shadows of the animals, which would show different ear outlines and other characteristics to distinguish the species.

49. Mr Kebede agreed that terrain would be better for ground surveys because that would give them the chance to speak to locals and gather data. Mr Gebremariam proposed combining ground with aerial surveys and Mr Kebede replied that for the aerial surveys it would be problematic with flying close to the border and that the oral element of ground survey was important. Paul Evangelista added that drones were suggested for Somalia surveys, but questioned how easy it would be to tell domestic donkeys from African Wild Asses from the air. Ms Moehlman agreed that it would be a challenge. Ms Denzau suggested using aerial surveys in closed areas like those with landmines.

Presentations on current projects and threats by various stakeholders

50. NGOs with projects on the ground were given the floor. Ms Maas presented the activities and projects of NABU (the largest and oldest NGO in Germany) in Ethiopia. Later, Mr Berhanu (GIZ) talked about the decision made by the German Ministry in 2012 to work on biodiversity with the Ethiopian Government. It was agreed between the two Ministries that a wide range of activities would take place. In 2015, a joint mission occurred with GIZ and KFW in order to identify areas for activity, including National Parks. In 2016, GIZ started on National Parks, forests and biosphere reserves in 16 different sites in four regions. GIZ is well-placed to support the Government of Ethiopia in the conservation and Conservation Roadmap for the AWA.

51. Mr Mallon asked how good the cooperation between BMUB, NABU and GIZ was. Mr Schall replied that an adequate example would be the Central Asian Mammals Initiative, in which all of them worked together effectively. For the AWA, BMUB was new to those species, so there had been less track record or opportunity to cooperate at the time.

Concrete Goals, Objectives and Action Steps

52. Mr Mallon asked the four Working Groups to confirm the actions they have previously identified and fit them into a three-column table including Objectives and Actions, and add anything that was missing. The SOS Fund was identified as one potential source of funding for implementation. About 30 per cent of the funds were available for non-carnivores, so the African Wild Ass could draw on that 30 per cent.

53. After the Working Groups submitted the updated Action Tables, Mr Mallon explained that those would be further refined and combined, to make the African Wild Ass Conservation Roadmap. Bert Lenten reminded everyone about the listing proposals for adding the AWA to CMS Appendix (I). On the previous evening, CMS met with BMUB and the two Range states and agreed that both countries would submit a proposal by the 25 May 2017 deadline. Ms Moehlman volunteered to write the background paper of AWA history and current status, which would be given to Eritrea and Ethiopia for inputs.

54. Mr Mallon acknowledged the agreed procedure for listing the AWA and for a Conservation Roadmap to be completed by the 25 May to be included in COP12. The complexities underscored the fact that while two Range States had adequate data, there were three former Range States with less data and not present at the meeting. Also, the captive populations would need help. The two Range States had had their national Action Plans since 2007 and 2016. Time for comments on the third version of the road map would be limited; the aim would be to have finished by 1 May, to meet the deadline on the end of May. That would give everyone four weeks to provide their feedback and comments. Mr. Bert Lenten would be responsible for a Conference of the Parties resolution which would be drafted by the Secretariat to which the Conservation Roadmap would be annexed.

55. Mr Mallon called for final points and comments to add. Mr Evangelista started by asking details about the SOS fund, and about which actions could be adopted to model the numbers of AWA found in each Range State. Mr Kebede replied that his PhD was on regional spatial models for habitat and Mr Mallon urged Paul Evangelista to look at the SOS fund and the Mohamed Bin Zayed Species Conservation Fund. It was suggested that an addition to the Conservation Roadmap would mention habitat modelling on regional scale. Mr Evangelista called for aid to further survey work, and that it would be good if Eritrea could donate its data.

56. Ms Denzau proposed to include a map with the historical sightings in the status review. Ms Moehlman challenged her point by mentioning that historical records would need verification and the sightings would be unreliable. Furthermore, some records were in Italian and needed translation. Sightings needed to be graded into hard, soft or anecdotal. Mr Evangelista urged to use more recent data, in favour of the less-useful historical data, for more likely hits on habitat with the species.

57. Mr Mallon summarized on the two points mentioned: habitat modelling and historical data. He said that the plenary seemed to be inclined towards having an up to date African Wild Ass database. It would be easier to apply for funds with this concrete action. It was also agreed that for general actions such as capacity building and climate change. The regional needs would be taken into account.

58. The slides from all presentations from the meeting would be turned into PDFs and published or shared unless there would be an objection. Ms Moehlman and Mr Evangelista would check their presentations and confirm. Ms Denzau would check with the Egyptian expert about his presentation and confirm as well.

Final Remarks and comments

59. Mr Mallon concluded the meeting by thanking everyone for two days of hard work. He commented on the effective outputs of the meeting. Ms Moehlman, speaking for the IUCN SSG congratulated everyone on a good meeting and thanked CMS and the BMUB for making it possible.

60. Mr Schall delivered a speech on behalf of Christiane Paulus (BMUB), saying that the conversation regarding listing AWA on CMS appendices had gone much more smoothly than could be expected. He gave the listing approach that the two States adopted as an example of success. He thanked Eritrea, Ethiopia and CMS, Mr Mallon and Ms Moehlman, and Mr and Mrs Denzau. He hoped to see everyone again in Manila or at the next African Wild Ass meeting.

61. Mr Lenten thanked all the participants and he mentioned that CMS provided the facilities, but the meeting was made successful because of all the participants. He thanked Mr and Mrs Denzau for exciting the interest of the German Government in AWA conservation, and the Range States for their cooperation and agreement to create the AWA listing proposal. Finally, he thanked Ms Moehlman and Mr Mallon. He reminded participants about the upcoming CMS COP12 in Manila and suggested that a side event on the AWA should be held during the Conference of the Parties.

ANNEX 1

ERITREA ACTION PLAN

VISION

We envision viable, genetically diverse and ecologically functioning populations of African wild ass. These populations will flourish in healthy ecosystems where they are appreciated and cherished by the local communities who derive economic development and food security. Support by national environmental policy and the building of capacity for both local and national experts is fundamental to the conservation of the African wild ass.

GOALS

Development of a strategic, science based National Action Plan and management program on the African wild ass and the ecosystems it inhabits.

a. Ecological Research
- Survey of Hagar Plateau African wild ass population
- Population dynamics research on the Denkelia African wild ass population
- Research on the range and ecological requirements of the African wild ass and associated wildlife in Denkelia
- Ecosystems analysis of Denkelia

b. Meteorological information
- Establish meteorological stations (Gel'alo, Buya, Baada)

c. Socio-economic research
- Socio-economic analysis of local community

d. Management Plans
- African wild ass Action Plan
- Assist in the development of the management plan for Buri-Irrori Protected Area

THREAT	ACTION	OBJECTIVE/Goal	TIME FRAME
Inadequate forage and water for reproduction and survival	Research on the range and ecological requirements of the African wild ass and livestock. Redae PhD	African wild ass and Denkelia ecosystem conservation	3 yrs
	Establish sanctuary: Messir Plateau-Irrori Plain	Improved access to water and forage	2 months
Small population viability	Population dynamics research on the Denkelia African wild ass population Redae PhD	African wild ass and Denkelia ecosystem conservation	2-3 yrs
	Demarcation of Messir Plateau-Irrori Plain sanctuary for African wild ass	Improved access to water and forage	
	African wild 10 yr management plan for the African wild ass range	Improved Population growth	6 months
Lack of capacity (technical capacity)	support to Diploma and BSc curriculum development and short courses in wildlife and ecology	Capacity Development	3 week courses
	support for ongoing MSc research programs	Capacity development	ongoing
	Support and training for wildlife scouts		
Spotted Hyena Predation	Temporary control program in emergency conditions	African wild ass conservation	5-10 years
	MSc funded research focused on spotted populations, distribution and predations impact	Reduce spotted hyena predation on African wild ass	
Disease	Literature research and awareness Short course for wildlife veterinarians	African wild ass conservation	2 yrs
Climate change Drought	Establish meteorological stations at strategic points in the African wild ass range	African wild ass and Denkelia ecosystem conservation	1 yr
	Long term research on impact of climate change on forage and African wild ass	African wild ass and Denkelia ecosystem conservation	5-10 yr
Human wildlife conflict	Socio-economic analysis of local communities	African wild ass and Denkelia ecosystem conservation	5 yrs
	Analysis of alternative sources of income for the local population	Community Development	1-2 yrs
	Awareness campaign for the public and education workshops for residents, administrators, policy makers, military, and mining employees		
Land degradation and soil loss	Status assessment and land reclamation, assist in the management plan of the Irrori-Buri Protected area management plan	African wild ass and Denkelia ecosystem conservation	5-10 yrs
Mining development	Monitoring and implementation of mitigation plan in the EIA	Denkelia ecosystem conservation	Check EIS

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ANNEX 2

ETHIOPIA ACTION PLAN

Objective	Actions	Indicator	Timeline	Actors
Protect African wild ass from hunting	Build capacity for law enforcement at different level	Successful prosecutions	1year	EWCA and partners*
	Increase number of community scouts and build their capacity	11 additional scouts hired, trained and equipped in all three areas (Bidu, Serdo, Hillu)	2 years	EWCA
	Encourage the involvement of religious leaders and elders to provide support	Directives issued that it is forbidden (Haram) to harm African wild ass	1 year	EWCA, Afar Regional State (concerned office)
	Encourage to enforce of customary laws		1 year	Afar Regional State (concerned office and elders
Engage local communities in conservation	Provide dispensaries	Two dispensaries built and staffed	2-3 years	ECWA, local government and partners
	Introduce wildlife guardian model (develop community reward scheme for wildlife guardian)		3-5	EWCA, Afar Regional State (concerned office) community elders
	Launching awareness programs scaling up best practices in wildlife conservation		1-2	EWCA and Partners
	Provision of alternative livelihood for community		2-5	EWCA, Afar Regional State (concerned office) and Partners
Reduce competition with livestock for forage and water	Conduct research and monitoring dietary overlap and resource competition between wild ass and livestock	Analyses completed	1-5 years	Academic institutions, EWCA, Research institutions
	Develop African wild ass (species) conservation action plan	Plan completed	ongoing	EWCA, Stakeholders and Partners
	Implement African wild ass (species) conservation action plan	Plan implemented	6month-3 year (after plan is complete d)	EWC, Afar Regional State (concerned office)
	Develop rangeland and water management schemes		2-4 years	EWCA, Afar Regional State (concerned office) partners
Reduce the impact climate change problems on African wild ass and its habitat	Assess and monitor the effect of climate change		1-2 years	EWCA, MEFCC, Partners and Stockholders (pastoral development…)

Objective	Actions	Indicator	Timeline	Actors
	Develop climate change resilient adaptive strategy		2-5 years	EWCA, MEFCC, Partners and Stockholders (pastoral development…)
Reduce the impact of infrastructure development, settlements, road and railroad development	Establish information data base of infrastructure developments	Information obtained concerning transport development in the region	1 year	ECWA and Stakeholders, ERA, EPC,
	Encourage participatory approach in the planning process	Permission obtained to participate in the planning process	1 year	EWCA
	Scale up best practices in implementing mitigation measures.	Open communication with other countries (Kenya and Mongolia) concerning transport challenges	1 year	EWCA, MEFCC and Regional State (concerned office), partners
	Monitor and evaluate the Environmental Impact Assessment	Legislation in place that ensures environmental impact statements need to be produced EIAs carried out to international standards	1 year-end of the project	EWCA, MEFCC, Regional State (concerned office
Improve Protected Area coverage	Establish a protected area in African wild ass potential areas	PA demarcated and gazetted Infrastructure (office, ranger post, ticket office at Bidu) developed	3 years	EWCA, Regional State (concerned office) and partners
	Develop a short and long term management plan		3-8year	EWCA,
Capacity Building	Strengthen the protected areas located in and around African wild ass ranges	Infrastructure and staff in place	Starting 1 years	EWCA, Regional State (concerned office0 and partners

ANNEX 3

ACTION PLAN FOR OTHER COUNTRIES

Somalia

Action	Timeline	Responsibilities
New surveys to determine occurrence, population and range	SOM - 6 months PUNT - ?	P. Evangelista
Protective areas and legislation	SOM – 2 years	Ministry of Environment and Rural Development*
Anti-poaching law enforcement	SOM – ?	Ministry of Environment and Rural Development*
Education and awareness campaigns	SOM – 1 year	P. Evangelista
Capacity building of wildlife department	SOM – 1 year	P. Evangelista
Genetic sampling (if populations exist)	SOM – 1 year	P. Evangelista/Ministry of Environment and Rural Development
Representation in international meetings and conservation strategies		

* Note: Government elections scheduled for October 2017

Sudan

Action	Timeline	Responsibilities
New surveys to determine occurrence		
Contact Sudanese government, Sudan National History Society, and other local stakeholders for information and support		

Djibouti

Action	Timeline	Responsibilities
Monitor transboundary movements on Gammare Plateau		
Contact Djibouti government, Nature Djibouti and other local stakeholders for information and support		
Monitor progress on National Biodiversity Strategy		

Egypt

Action	Timeline	Responsibilities
New surveys to determine occurrence, population and range		
Genetic sampling to determine any levels of hybridisation		
Contact Egyptian government and other local stakeholders for information and support (Gebel Elba Nature Reserve, Wadi al Aullaki Biosphere Reserve, Egyptian National History Society)		

ANNEX 4

CAPTIVE POPULATION ACTION PLAN

Action	Timeline	Responsibilities
Sarcoids: develop vaccine	?	Vet Basel zoo
EHV: pursue sampling	?	Zoos in breeding programmes
Expand captive population in zoos, on other continents	ongoing	Tim Thier, Beatrice Steck, when chances arise
Expand captive population, include private holders	ongoing	Tim Thier, Beatrice Steck, when chances arise
Identify semi-reserves for larger groups	ongoing	Tim Thier, Beatrice Steck, when chances arise
Identify new blood in private collections, middle east, USA	1 year	Tim Thier, Beatrice Steck, David Mallon (provide contacts, such as Mark Craig, Arabian Zoo Association, etc.)
Fill in gaps in pedigree	ongoing	Possible focal points: Albano Bejo-Pereira, San Diego Zoo (Jamie Ivy)
Collect samples for genetic and other analyses	ongoing	All zoos
Distribute in situ information to zoos	ongoing	SG, range state experts

ANNEX 5

THREATS ANALYSIS AWA

Threat	Scope	Severity	
1. Poaching	<25% (ET), 0% (ER), ? (SO)	Low	Ethiopia: Minimized over last 20 years. However the situation in large parts of the range is unknown. Large killing by Issa.
2. Resource Overlap (Competition)/ Overgrazing	>75%	Very High	Includes encampments close to water holes
3. Potash Mining	<25% (Includes core area in ER)	Unknown (Potentially High)	Future impact will be substantial, so enforcement to comply with the agreed mitigation measures is necessary (Monitoring of the implementation of all the measures agreed upon) Unknown (Potentially High, if mitigation measures are not implemented properly)
4. Gold Mining	Unknown	Unknown	Exploration in Ethiopia.
5. Spotted Hyena Predation	<25%(ET), >75% (ER)	Low(ET), Medium/High (ER)	Research on level of impact
6. Climate Change	100%		
7. Drought	100%	Very High	Frequency increasing
8. Habitat Degradation and Loss			
9. Linear Infrastructure Roads/ Railways	<25% (Includes core area in ER)	Unknown (Potentially High)	Future impact will be substantial, so enforcement to comply with the agreed mitigation measures is necessary (Monitoring of the implementation of all the measures agreed upon) Unknown (Potentially High, if mitigation measures are not implemented properly)

Threat	**Scope**	**Severity**	
10. Demography			There is no reported conflict between feral donkeys and people
-Small Population			
-Low genetic diversity	Unknown	Unknown	
-Hybridization	Unknown	Low	Potential threat but so far there is no evidence
-Low recruitment			Fluctuating number of foals each year
11. Invasive Species	Unknown	Unknown	*Prosopis Juliflora* is considered to be beneficial with proper management in some parts of the region
12. Disease	100%	Low	No evidence yet
13. Insufficient technical and institutional capacity (Lack of effective management)			Lack of trained staff, lack of equipment, of resources, of legislation or enforcement of legislation
14. Lack of awareness of conservation			Continuous awareness raising is needed
15. Inadequate PAs	>75% (ET)	Unknown	Most of the population is found out of PAs (ET)

ANNEX 6

Convention on the Conservation of Migratory Species of Wild Animals

1st African Wild Ass Range State Meeting (AWA)

Bonn, Germany, 6 - 7 March 2017

UNEP/CMS/AWA/Doc.3

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(07.03.2017)

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